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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,766	07/25/2003	Myeong Ju Kwon	40296-0002	1851

26633 7590 10/21/2005

HELLER EHRMAN WHITE & MCAULIFFE LLP
1717 RHODE ISLAND AVE, NW
WASHINGTON, DC 20036-3001

EXAMINER

CUNNINGHAM, TERRY D

ART UNIT PAPER NUMBER

2816

DATE MAILED: 10/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

FL

Office Action Summary	Application No. 10/626,766	Applicant(s) KWON ET AL.	
	Examiner Terry D. Cunningham	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6-10 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6-10 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (2002/0084833).

With respect to claims 1, 2, 6-10, 14, 15, 19 and 20, Kim et al. disclose, in Figs. 3 and 4, a circuit comprising: “a detector (100 or Fig. 4) for comparing an output voltage (VPP) of the voltage generator with a first reference voltage ((VREF as applied to 100-1) or (the voltage VREF + the voltage across R2-Rn)) to output a first sensing signal (DET 2) and comparing the output voltage of the voltage generator with a second reference voltage ((VREF as applied to 100-2) or (VREF + the voltage across Rn)) lower than the first reference voltage to output a second sensing signal (DET n)”; “a controller (300) controlled by an action signal (PUL) for outputting a first control signal (input to 40-2) and a second control signal (input 40-n) in response to the first sensing signal and the second sensing signal”; “a sub-booster (40-2) for boosting a voltage in response to the first control signal”; and “a main booster (40-n) for boosting a voltage in response to the second control signal”; and “a voltage adder (the node providing VPP) for adding output signals from the sub-booster and the main booster to provide the output voltage”.

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With respect to claims 16-18, clearly the above reference to Kim et al. discloses, in Figs. 3 and 4, a circuit that will provide a method comprising: “receiving an action signal (receiving PUMP_ON)”; “generating a first voltage signal (DET 2) in response to the action signal when the output voltage is less than a first reference voltage ((VREF as applied to 100-1) or (the voltage VREF + the voltage across R2-Rn))”; generating a second voltage signal (DET n) in response to the action signal when the output voltage is less than a second reference voltage ((VREF as applied to 100-2) or (VREF + the voltage across Rn)) which is less than the first reference voltage”; and “adding (with the node providing VPP) the first voltage signal and the second voltage signal to generate the output voltage”.

Examiner has fully considered Applicant's remarks for the above rejection and has not found them to be persuasive. Firstly, Examiner also points out that nowhere does the claim state that the “first reference voltage” and the “second reference voltage” are different values. And second, it appears that Applicant is misunderstanding the operation of Kim et al. For clarity, Examiner points to Applicant's Fig. 6a, it is understood that Applicant is of the belief that this circuit compares the output voltage V_{pp} to V_{cr1} and V_{cr2} . However, on the contrary, voltages V_{pps1} and V_{pps2} (not V_{pp}) are compared to V_{cr1} and V_{cr2} , respectively. As understood by one skilled in the art, the circuit of Fig. 6a compares V_{pp} to V_{cr1} + the voltage across R1 and compares V_{pp} to V_{cr2} + the voltage across R1 and R2. Similarly, the circuit of Fig. 4 of Kim et al., compares VPP to VREF + the voltage across R2-Rn and compares VPP to VREF + the voltage across Rn. Clearly, these voltages would respectively comprise “a first voltage reference” and “a second voltage reference”.

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Claims 3-5 and 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference is made to Fujii et al. which discloses a circuit similar to that claimed, but lacking details of the level detecting circuit.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

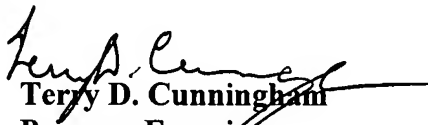
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terry Cunningham whose telephone number is 571-272-1742. The examiner can normally be reached on Monday-Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TC
October 19, 2005


Terry D. Cunningham
Primary Examiner
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